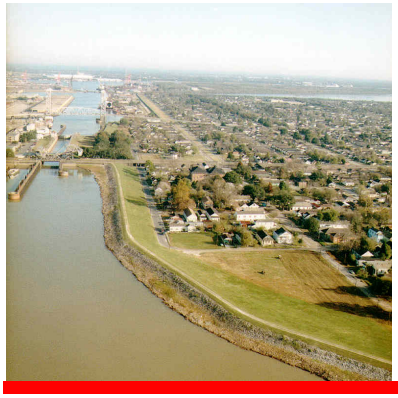

U.S. Army Engineer
Research and Development Center

Inner Harbor Navigational Canal Lock Replacement

Problem The Inner Harbor Navigation Canal (Industrial Canal) Lock will be replaced with a larger, modern lock because the existing lock is too small and congested, causing delays to traffic, which is primarily inland navigation such as barges and towboats. Cost of the project is shared with local and Federal funding totaling nearly $1 Billion. Construction of the IHNC lock will require dredging of 3 million cy of sediment potentially contaminated due to significant industrial activity in the region and impacts from Hurricanes Katrina and Rita. The sediment will be managed by placement in the Mississippi River, a confined disposal facility, or used beneficially for construction backfill or levee construction and marsh restoration. Sediment proposed for dredging requires contaminant evaluation under NEPA and CWA. The project is currently under litigation (including community mitigation, $40 million) due to the potential for ecological impacts in region and indirect exposure to people living in nearby community. This project was started in 2005 and stopped by the hurricanes. Emergency dredging was completed in 2006/7.

Solution ERDC is providing direct support to CEMVN for litigation expertise, risk-based contaminant evaluations, and environmental engineering. Specific activities include the sampling plan development, aquatic toxicity assessment, terrestrial bioaccumulation study, fate and transport modeling, risk-based modeling and assessment, and engineering support for the development of a confined disposal facility. Material that is categorized as posing no unacceptable adverse impacts on humans and ecological systems will be used for marsh/coastal reconstruction.

Impact This effort is a high visibility project for the USACE because of its location between greater New Orleans and the Lower 9th Ward that was devastated following Hurricanes Katrina and Rita. Completion of the project will promote and support reconstruction of this area of New Orleans and improve the overall level of hurricane protection. USACE is currently completing a supplemental environmental impact statement to address concerns outlined in litigation as a result of concerns regarding the level of contaminants in the area.

Selected Products

USACE ERDC/CEMVN, 2008. Supplemental Environmental Impact Statement for the Support of the IHNC Construction Project. Ongoing.

USACE ERDC/CEMVN, 2007. Environmental Evaluation of Sediments Proposed for Emergency Dredging in Industrial Canal. May 2007.

Wiegand, D., Corbino, J., Farrar, J., Mach, R., Mathies, L., Olin-Estes, T., Suedel, B. and J. Steevens. Assessment of Sediments Proposed for Dredging in New Orleans, LA: Impact of Hurricanes Katrina and Rita. Remediation of Contaminated Sediments Conference, Battelle, January 2007, Savannah, GA.

Suedel, B.C., Steevens, J. A. and Splichal, D. E. 2006. A Pilot Study of the Effects of Post- Hurricane Katrina Floodwater Pumping on the Chemistry and Toxicity of Violet Marsh Sediments. ERDC/EL TN-06-3, U.S. Army Engineer Research and Development Center, Vicksburg, MS.

Collaborators

Severn Trent Laboratory/Test America, Weston Solutions.

Funding

Civil Reimbursables

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